

DoD 4160.21-M, Defense Materiel Disposition Manual
Chapter 4 – Property Requiring Special Processing
Paragraph B

3. Ammunition, Explosives, Dangerous Articles (AEDA), AEDA Residue and Range Residue, and Explosives-Contaminated Property (ECP)

a. General

(1) This section consolidates the special processing guidance for AEDA, AEDA residue, range residue and Explosives-Contaminated Property (ECP).

(2) Each DoD Component will designate a manager to develop and coordinate AEDA, AEDA residue, range residue and ECP policies, procedures, and applicable training standards for subordinate Commands, as it pertains to disposal.

(3) The DoD Components will ensure commercial contract services for AEDA residue, range residue, and ECP conform to the requirements contained within this section.

(4) The generating activity shall dispose of all AEDA, uncertified range residue, and ECP, and assure compliance with 40 CFR 266, the Military Munitions Rule (MMR).

(5) Generating activities shall exercise extreme care in the disposal of property that is potentially dangerous to public health, safety and the environment. All such property having a sales value only for its basic material content shall be decontaminated (chemically or thermally neutralized, fired, or vented) by effective methods to minimize the potential for harm from contaminants and/or component substances. Component approved decontamination methods shall ensure that there is no hazard to the item (e.g., the area normally containing the hazardous material will be opened for visible inspection). Decontaminated AEDA, AEDA range residue, and ECP must be properly segregated, and shall not be commingled with any other property, either by the generating activities, commercial services contractors, or DRMOs. In addition, the property will not be in original configuration when released from DoD control.

(6) The generating activity is responsible for ensuring the retrieval, safeing, and associated costs of all AEDA, range residue or ECP containing and/or contaminated with explosives inadvertently released from DoD control and discovered to be live and/or unsafe. The initial responding DoD Component will serve as the DoD representative to ensure that all necessary actions are taken to remedy the situation and to ensure that all live or suspected live ordnance or contaminated material is either destroyed or returned to DoD control. In all instances where ownership of the material cannot be determined, the final determination will not be made until the material is returned to DoD control and the material is rendered safe and/or decontaminated. Cross-Service assistance will be provided as necessary and reimbursement will be made by the generating activity. Where ownership of the material cannot be determined, all generators with material at the site will share in the reimbursement for all associated costs.

(7) Incidents involving live AEDA or explosives contaminated material .

(a) Incidents involving the discovery of live AEDA, Range Residue or ECP outside DoD control which have the potential for injury and/or property loss or result in injury or

property loss will be thoroughly investigated either by the owning generator or jointly by the DoD components potentially involved.

(b) Where the services of the DRMS were utilized for the disposal of the property the Commander of DRMS will request the initiation of the investigation through HQ DLA.

(c) All incidents will be reported through/to the appropriate Command channels. In addition to, or in the absence of, established reporting requirements, a Situation Report (SITREP) will be forwarded to the DoD Demilitarization Program Office, DLSC-LC, via facsimile, electronic mail (Email) or AUTODIN message within 12 hours of the incident. (FAX: DSN 427-1531; Email: AEDA@hq.dla.mil; AUTODIN: DLA FT BELVOIR VA//DLSC-LC//.) The SITREP will be formatted as shown in Attachment 2.

(8) Inspection/Certification.

(a) The generating activity shall ensure that this property is properly inspected to determine the presence or absence of explosive hazards prior to referral to the DRMO or release from DoD control. The inspection shall be performed by AEDA technicians or other technically qualified personnel as designated by the generating activity. Commercial contractors responsible for certifying AEDA residue, Range Residue or ECP must possess qualifications equal to those of technically qualified DoD personnel. The personnel certifying and verifying the inspection shall certify on the DTID, as follows:

“This certifies and verifies that the AEDA residue, Range Residue and/or Explosive Contaminated property listed has been 100 percent properly inspected and to the best of our knowledge and belief, are inert and/or free of explosives or related materials.”

(b) Certifications require dual signatures. The first signature (certifier) may be either qualified DoD personnel or qualified contractor personnel. The second signature (verifier) must be a technically qualified DoD person, and U.S. citizen. Where Government contract requires contractor verification (in addition to Certification), this requirement may be waived. However, appropriate DoD quality assurance controls must be established.

(c) The certification and verification signatures must be directly above the typed or clearly stamped or legibly printed full name, rank/rate, complete organization name and address, and phone number (commercial and DSN) of the personnel that certified and verified the inspection. Each generating activity shall ensure that its servicing DRMO has a current list of the personnel and their sample signatures who are qualified and authorized to inspect, certify and verify AEDA Residue, Range Residue and ECP.

(d) Material which can not be certified as above will be treated as ECP or Group 2 Range Residue. Such materials may be sold or disposed of only in accordance with paragraph 3.d of this section.

(e) The generating activity will provide quality assurance inspections, certification/verification and, where appropriate, demilitarization or decontamination of individual ordnance items prior to certification (3.a.(8)(a) above) and release from DoD control.

(f) Incidents in which a certification is found to be incorrect (e.g., forged signatures, unauthorized signatures, improper inspections, improper documentation, etc.) will be fully

investigated. Appropriate administrative or punitive actions will be taken.

(9) Generating activities and DRMOs shall utilize the Memorandum of Agreement (MOA) (Attachment 3) for in-place sales.

(10) Material covered under the preceding paragraph B3a. is also subject to the provisions and requirements of DoD 4160.21-M-1.

b. Ammunition Scrap.

(1) Ammunition Scrap includes unserviceable steel, aluminum, or copper-based metals (including brass) in the following categories:

- (a) Artillery cartridge cases, deprimed, clean.
- (b) Artillery cartridge cases, deprimed with propellant residue (film, fine dust, not measureable).
- (c) Artillery cartridge cases, with fired primers.
- (d) Gilding metal, rotating bands, clean.
- (e) Metal solids, munitions casings with energetic filler(s) removed, e.g., mines, projectiles, warheads, bombs, rocket motors, fuzes, or components.
- (f) Metal solids, clean.
- (g) Skeleton webbing, clean.
- (h) Small arms cartridge cases.
- (i) Expended rocket motors.
- (j) Related inert items, e.g., launchers, bomb dispensers, dummy rounds, inert components.
- (k) Spent canisters from smoke, riot control and pyrotechnic munitions, e.g., grenades, projectiles, signals, flares, or smoke pots.

(2) Army Industrial Operations Command (IOC) facilities which generate large quantities of aluminum, steel, or copper-based metals (including brass) shall request disposition instructions from Headquarters, IOC, ATTN: AMSIO-IB, Rock Island, IL 61299-6000. The disposition instructions shall provide that the material shall first be offered as U.S. GFM to brass mills supporting DoD ammunition production programs. If this material is not needed as GFM, it shall be sold by DRMS or disposed of through the Plant Clearance process.

(3) Other Military Service/Defense Agency activities no longer requiring ammunition scrap for reuse shall turn this property over to a DRMO for sale. The DTID shall contain a certification that the material has been inspected, certified and verified in accordance with paragraph B3a(8), above. If property cannot be certified as inert and/or free of explosives or other related materials, it will be processed as ECP, as described below. If sales proceeds are reimbursable, the DTID

shall also contain the applicable account to which proceeds from sale of ammunition scrap shall be deposited, as appropriate.

(4) Imposed freeze of sales. If an emergency situation develops that requires additional ammunition brass to support the GFM program and, upon the request of the Commander, U.S. Army AMC, DLA shall impose a freeze on any and all DoD sales of fired brass. This freeze shall impose DoD reporting requirements and shall specify the type of ammunition brass to be reported. During this freeze period the Military Services/Defense Agencies shall continue normal processing if the AMC does not provide disposition instructions within 30 days from the date material was reported to AMC.

(5) Fired Small Arms Cartridge Cases.

(a) Certified cartridge cases. DRMOs shall accept custody of fired cartridge cases only when the generating activity has inspected and certified the material, in accordance with paragraph B3a(8). DRMOs shall not accept accountability or physical custody of any brass that is not certified.

(b) Segregation of small arms cartridge cases. Fired small arms cartridge cases that are to be turned in to a DRMO after having been inspected, certified and verified in accordance with paragraph B3a(8) shall be segregated by the generating activity by metal type and caliber.

(c) Uncertified cartridge cases. The generating activity shall segregate by metal type and caliber, and manage in accordance with 40 CFR 266. This property will be handled as identified for ECP in paragraph B3(d).

(d) Expended small arms cartridge cases, caliber .50 and under may be sold on non-national type sales in CONUS provided sales lots do not exceed 250 pounds. The maximum daily offering will not exceed 500 pounds and is limited to 2000 pounds per month. A completed End Use Certificate (EUC) is required from each purchaser and will be reviewed by the responsible DRMO personnel for completeness. The EUC will then be forwarded to the servicing DLA Trade Security Control Resident Office (TSCRO). DRMS will notify each purchaser that subject property cannot be exported or sold to any parties outside of the United States without being first totally destroyed. Expended small arms cartridge cases, caliber .50 and under, after being properly inspected, certified, and verified, shall be crushed, shredded, or otherwise destroyed prior to public sale through a Qualified Recycling Program.

(e) Expended artillery cartridges and shell casings over .60 caliber in overseas areas need not be demilitarized. Artillery and shell casings over .60 caliber will be processed as demilitarization code "B" material--EUCs and Import Certificate/Delivery Verification (IC/DV) procedures apply. Host governments should be consulted prior to disposal, where appropriate.

c. Explosives Sales.

(1) In the United States, DRMS and Headquarters, Army Industrial Operations Command (IOC) shall:

(a) Sell surplus explosives meeting the criteria found in DoD 4160.21-M-1.

(b) Identify in the sale solicitation the material hazard characteristics and any special permits the purchaser must obtain from the Department of Transportation (DoT), U.S.

Environmental Protection Agency (EPA), the Bureau of Alcohol, Tobacco and Firearms (BATF) or state environmental agencies.

(c) Establish a cross-reference file to relate existing markings to a sale solicitation number, item number, and the date of sale. This cross-reference will facilitate source identification if an investigation is necessary. If markings reported by the DRMO do not permit the DRMS to trace the origin of the ammunition, the DRMS shall, as a condition of sale, assure the purchaser identifies the explosives packages before they are removed from DoD control. As a minimum, the purchaser shall place the following identification on the containers: applicable NSN, nomenclature, quantity, and lot number (if available). The DRMS shall include this identifying information in the cross-reference file.

(d) Include notice in the sale solicitation when explosives in containers do not meet DoT specifications and state where a suitable site is available for customer repackaging into DoT specification containers (Site specified must have a DoD Explosive Safety Board approved Explosive Safety Site Plan).

(e) Require purchasers to obtain all applicable permits before permitting them to remove explosives and hazardous material from the installation.

(2) Generating activities:

(a) May report explosives, to include unfired small arms cartridge cases/ammunition, to the DRMO for sales service only, except as indicated in paragraph B3a(5).

(b) Shall retain accountability and custody of explosive material.

(c) Shall document the condition and current stability of the material on the DTIDs.

(d) Shall label explosives so that the hazardous characteristics are evident.

(e) Shall provide a certification as to the true condition and reliability of the original military containers.

(f) Shall offer explosives in packages with a minimum size of not less than 25 pounds when (1) the containers meet or exceed DoT Hazardous Materials Regulations (Title 49 CFR, Parts 170-189) standards (except when DoT regulations specify otherwise) or (2) the total quantity of a single type explosive offered is less than 25 pounds. Multiple subpackages within containers are not permitted. Generating activities shall submit requests for exceptions to HQ DRMS for approval on a case-by-case basis.

(g) Shall verify that the purchaser has all applicable permits before permitting them to remove explosives and hazardous materiel from the installations.

(3) The DRMO shall:

(a) Report explosives to the DRMS.

(b) Include a portrayal of existing military markings in the sales referral.

(4) The sales contracting office shall check EUCs for completeness.

(5) Outside the United States, if the host country's standards are more stringent than the U.S. standards, and compliance with those standards is determined to be too costly or cannot be met, the generator may retrograde the explosives to the United States for disposition.

d. Explosives-Contaminated Property (ECP).

(1) ECP is property that has been exposed to explosives or related materials resulting in accumulation of contamination to the property. Dependent on the level of contamination, explosive/related material removal actions, and/or decontamination efforts; the ECP may be considered safe for its intended use, but may not be considered properly decontaminated for public use. The distinction lies within the control and intended use of the ECP. If within the control of the Military Service activities or a restricted group of commercial firms in the ammunition and explosives business, the ECP may be suitable for certain uses without decontamination. Where the ECP may ignite or explode when exposed to flame, sparks, or other high temperature sources, due to residual explosive material left in joints, bolts, angles, or cracks, the ECP must be controlled and identified accordingly.

(2) The generating activity shall take every precaution to clean any property contaminated with explosives. Decontamination level 3X is the minimum for use within DoD or authorized contractors, or for sale to restricted buyers. Decontamination level 5X is the minimum for unrestricted sale to the public. The procuring Military Service, upon request, shall determine the proper decontamination process. Property that cannot be effectively decontaminated shall be destroyed as directed by the procuring Military Service.

(3) Sales solicitations will identify the material hazard characteristics, and any special permits the purchaser must obtain from the Department of Transportation (DoT), U.S. Environmental Protection Agency (EPA), the Bureau of Alcohol, Tobacco and Firearms (BATF) and state environmental agencies.

e. Chemical or Toxic-Contaminated Munitions.

(1) Chemical Munitions consist of both lethal and non-lethal type munitions. Lethal munitions, such as those filled with or containing residue of agents GA, GB, GD, VX or mustard agents, or bulk quantities of these materials, shall be disposed of only by the U.S. Army Chemical Material Destruction Agency, Aberdeen Proving Ground, MD 21010-5401. These items are tightly controlled and any questions must be directed to the U.S. Army Chemical Material Destruction Agency.

(2) Nonlethal chemical munitions, such as those filled with or containing residue of WP, HC or colored smokes, and riot control agents such as CS, CN or DM shall be disposed of in accordance with DoD Component internal regulations and procedures.

(3) Materials (shell casings, munitions bodies, or components) contaminated with lethal chemicals must be decontaminated to Military Service standards, typically 99.9999 percent clean. These same materials contaminated with non-lethal chemical munitions may be processed as ammunition scrap, paragraph B.3.b. or range residue.

f. Range Residue.

(1) For purposes of disposal, it shall be segregated and defined as either Group 1a, Group 1b or Group 2.

(a) Group 1 includes munitions components or casings that previously contained explosives or related materials, or property that does not contain items of a dangerous nature. Group 1 material can be certified inert and/or free of explosives or other related materials such as shrapnel, casings, cartridge cases, targets, bomb fins, or certain expended ordnance.

1 Group 1a. Firing range expended small arms cartridge cases and inert metals gleaned from range clean up. Metals gleaned include material for which the only use is for its basic material content (e.g.: clean shrapnel, target metal, etc.) and does not include material with any residual utility or capability or that is considered to be MLI or CCLI. Such material is eligible under the Resource Recovery and Recycling Program for disposition by a QRP in accordance with DoDI 7514.1, Pollution Prevention. DoD Components may exercise direct sale authority (QRP) for firing range expended small arms cartridge cases provided they are crushed, shredded or otherwise rendered unusable for their intended purpose prior to release from DoD control.

2 Group 1b. Any certifiable material or item not meeting the criteria in 1a above. A determination shall be made as to whether the material/item requires demilitarization (see DoD 4160.21-M-1). Damage sustained does not necessarily constitute demilitarization. Destruction shall, at a minimum, satisfy the provisions of the DoD 4160.21-M-1. This material is not eligible for a QRP.

(b) Group 2 includes inherently dangerous items that may potentially contain explosives or related material residue and cannot be certified as inert, such as practice bombs (e.g., BDU 33) or projectiles (duds), unexploded ordnance (UXO), fuzes, fused munitions, or 20 MM projectiles (MK-106).

(2) The generating activity:

(a) Shall inspect and certify all range residue that was fired or fired upon (hard target residue), and segregate it for disposal into Group 1a, Group 1b and Group 2. Inert metals (Group 1a) and hard target residue will be further segregated by metal type. All other materials in Groups 1a and 1b will be segregated by munitions type and stored to facilitate final re-inspection.

(b) May refer inspected Group 1a and demilitarized Group 1b property to a DRMO for in-place sales service. The generator shall take action as required by paragraph B3f(2) above.

(c) Shall accomplish and certify all required demilitarization and mutilation in accordance with DoD 4160.21-M-1 and other applicable guidance before referral to the DRMO. (**NOTE:** Under special circumstances, demilitarization or mutilation as a condition of sale may be used.)

(d) Shall retain custody and accountability for all range residue except expended cartridge cases.

1 Shall provide a separate, secured storage area for range residue that will be sold in place. The generating activity and the DRMO must agree upon storage locations for range residue and document these in the MOU (refer to paragraph B3a(6))

2 Dispose of through approved contracting channels any Group 1 and 2 property that the DRMO can not sell by the in-place sale service process.

(e) Shall provide qualified personnel to certify range residue contains no radioactive residue.

(f) When required, ensure that classified materials have been declassified and demilitarized with appropriate certifications provided on the turn-in documentation.

(g) Shall provide a list of munitions expended and identify the potential danger of the material on the turn-in document.

(h) Shall provide on-site familiarization to contracting personnel regarding hazards/dangers inherent in accumulations prior to execution of the contract.

(i) Shall comply with any RCRA, MMR and Federal Facilities Compliance Act requirements.

(j) Shall conduct a pre-award survey on all performance contracts.

(3) The DRMO shall:

(a) Verify that the applicable documents contain required data and that all certifications contain the authorized signatures and data identifying the certifying individuals (refer to paragraph B3a(8)).

(b) Provide an in-place sales service as requested by the generating activity.

(c) Ensure that certified range residue does not contain demilitarization required or mutilation required material prior to award unless material has been offered with demilitarization or mutilation as a condition of sale.

(d) Ensure the Dangerous Property Article is included in the sales solicitation when offering property.

(e) Assist generating activity with the identification of demilitarization required, mutilation required and QRP eligible material.

g. Containers. This applies to all non-hazardous shipping and storage containers having previously contained AEDA in FSCs 8140/8145. Also included are bandoleers, ammo pouches and similar items. When these containers are turned in to a DRMO, the generating activity shall provide the same certification as found in B3a(8). Containers will be placed on or banded to pallets in a manner which will allow visual inspection of all containers at the time of turn in to the DRMO.

h. Property Discovered to be Live AEDA/ECP. When material that has been reported or physically turned in to the DRMO is found to contain live AEDA or to be ECP:

(1) All personnel will immediately vacate the area when suspected live AEDA/ECP is discovered.

(2) The DRMO shall prepare and distribute to appropriate parties a special SITREP addressing the incident.

(3) The DRMO shall request the assistance of the generating activity to provide qualified personnel to investigate the incident and take appropriate actions.

(4) The generating activity shall respond by having qualified personnel investigate the incident and set a course of corrective action. Actions may include reinspection, recertification, retrieval, accountability, or custody, as appropriate. Actions shall be based upon applicable regulations and agreements and take into consideration public safety, environmental impact, and Government liability.

(5) In the event of mixed lots, the pertinent activities shall participate in a joint investigation and determine appropriate actions.

(6) Military Service activities shall establish a focal point to consult with the DRMO and the Sales Contracting Officer to determine the appropriate course of action based upon the MOU and pertinent regulations. When the generating activity and DRMO do not agree on incident remedial actions, the focal point shall coordinate with HQ DRMS to attempt to reach an agreement. If the focal point and DRMS do not agree, the focal point will consult with the HQ of the Military Service for coordination with HQ DLA. If the HQ of the Military Service and HQ DLA do not agree upon a course of action, they may jointly refer unresolved matters to Deputy Under Secretary of Defense (Logistics) (DUSD (L)).